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ABSTRACT

A review of dozens of journal articles and books on the subject of writing across the curriculum reveals the following basic assumptions that seem to characterize most college writing across the curriculum programs: (1) writing is a complex and developmental process; (2) writing should be used to promote learning; (3) the teaching of writing is the responsibility of the entire academic community and of every teacher; (4) the teaching of writing should be integrated across departmental lines; (5) writing serves several functions in the educational context; (6) the universe of discourse is broad; and (7) the teaching of writing should occur during the entire four undergraduate years. Studies also support the assumption that writing increases student learning. It is clear, however, that there is little common agreement on how best to go about fostering writing skills among disciplines operating with quite diverse rhetorical conventions. In addition, few individual faculties seem to have developed a systematic approach giving overall direction to their own practices toward student writing. The apparent broad interest in student writing is accompanied by fragmentation of attitudes, expectations, and practices in that direction. These studies suggest that English departments would serve themselves and the total campus well by seeking ways to cooperate with their colleagues in other disciplines to accomplish what is obviously a widely shared goal--the development of skilled writers. A 33-item reference list is included. (HOD)

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WRITING ACROSS THE CURRICULUM: A RESEARCH REVIEW

Elaine Maimon, one of the major figures in the writing across the curriculum movement, has pointed out that this movement is not really new. "Writing across the curriculum," she writes, "is not an innovation but a rediscovery of what is essential in education."[1] To understand its roots, one must look to the oratory instruction of classical Greece and Rome. At that time rhetoric was the fulcrum of study. Maimon goes on to say that the medieval trivium of the liberal arts--grammar, rhetoric, and logic-- was really an earlier version of writing across the curriculum. The conceptual base is the same today as it was then; only the vocabulary has changed.

While the concept of writing across the curriculum is many centuries old, however, the theoretical base upon which most current programs are based is quite different from that of classical rhetoric and the medieval trivium. A dramatic "paradigm shift" is revolutionizing composition pedagogy and research, moving them from a product to a process orientation, from viewing writing as informing to writing as learning, from a narrow to a broad universe of discourse. It reflects a dynamic, interactive perspective as opposed to a mechanical, skills approach to writing instruction.

The specific structures and operating modes of the programs already in place are as diverse as the institutions in which they are found. Sponsors of writing across the curriculum or university-wide writing programs can be found at large research universities such as the University of Michigan, University of Texas at Austin, University of California

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at Los Angeles, and the University of Utah. They can be found at elite liberal arts institutions such as Yale, Bucknell, and the University of Pennsylvania. They can, in fact, be found at virtually every type of college and university in the country: Beaver College, Michigan Technological University, Pacific Lutheran, George Mason, University of Tampa, California State University at San Bernadino, Hunter College, Lewis and Clark, the College of Great Falls, Assumption College, Carleton College, Johnson State College. The Baltimore Consortium for Writing Across the Curriculum is comprised of thirteen separate institutions in that geographical area alone.

Given this diversity, one must be cautious in making generalizations. However, from a review of dozens of recent journal articles and books on the subject, the following basic assumptions seem to characterize most writing across the curriculum programs to a significant degree:

(1) Writing is a complex and developmental process. This assumption lies at the heart of the paradigm shift occurring in the field of composition. For mature writers this process is often unconscious and intuitive, whereas poor writers, often lacking confidence and fluency, are likely to have poorly developed or truncated writing processes. Nevertheless, all writing is to some extent recursive, as the writer attempts to balance the demands of the subject matter, the writer's own purposes, and the expectations of the intended audience, while at the same time adhering to an appropriate set of formal conventions and syntactical arrangements.

(2) Writing should be used to promote learning. Limiting writing to reporting or regurgitating known information seriously inhibits

the educational growth of the student. Randall Freisinger says that the central thesis of the cross-disciplinary writing workshops that he conducts with faculty at Michigan Technological University is that "Language for learning is different from language for informing."[2] Teachers in his workshops are shown how the concept of personal or expressive writing must be taken into account in devising assignments and strategies for promoting learning through writing. Students, he maintains, must make personal connections with new material for it to become meaningful.

(3) The teaching of writing is the reponsibility of the entire academic community and of every teacher. Written language plays a central, fundamental role in every discipline, both in communicating knowledge and generating new knowledge. One cannot participate fully as a member of a discipline if one has not mastered the written conventions of that discipline. In addition, writing fosters increased knowledge of the subject matter itself.

(4) The teaching of writing should be integrated across departmental lines. Writing can help us discover the linkages between disciplines, as well as the shared connections and values that bind us together. Viewing student writing as a collegial enterprise can help promote the goal of interdisciplinarity central to the concept of liberal or general education.

(5) Writing serves several functions in the educational context. It makes the communication and understanding of complex concepts and abstractions possible. It promotes learning and the generation of new knowledge. It fosters cognitive development. Finally, it is a value-forming activity, or as Toby Fulwiler and Art Young put it, "The act of writing allows authors to distance themselves from experiences and helps them to interpret,

clarify, and place value on experience; thus writers can become spectators using language to further define themselves and their beliefs."[3]

(6) The universe of discourse is broad. Teachers should encourage different types of writing for a variety of audiences and purposes. Assignments should include expressive or personal writing as well as transactional writing.

(7) The teaching of writing should occur during the entire four undergraduate years. The ability to write effectively requires continual practice or it becomes lost. In addition, cognitive development and value formation occur slowly over time. One or two freshman writing courses, normally detached from the student's field of interest, are not sufficient to foster significant change or growth unless they are integrated into a continuum of developmental experiences over an extended period of time.

It is clear that writing across the curriculum is one of the more important issues facing educators in the 1980s. To what extent attempts to implement such programs will succeed in a broad range of institutions will be dependent, at least in part, on three factors: (1) the degree to which writing can be demonstrated to increase student learning in different disciplines; (2) current faculty attitudes and practices toward student writing; and (3) the extent to which those attitudes and practices can be changed and student learning thereby enhanced through writing. The remainder of this report will be devoted to a review of research on the first two of these.

WRITING AS LEARNING

Janet Emig has pointed out that writing is a unique and special way of learning.[4] It integrates both left and right brain activity, while the eye, hand and brain, our three modes of interacting with experience, are employed simultaneously. The verbal product offers a unique form of feedback, as it is immediately there for review. Writing is self-paced and self-rhythmed learning. It is more engaging and committed than other modes of learning, requiring an intense involvement by the learner with the subject matter. It is slower than talking and encourages shuttling among past, present, and future, thus connecting the three major tenses of our experience to make them meaningful. These tenses are united by the processes of analysis and synthesis, as good writing forces the writer to be clear about relationships. Writing, then, can be a powerful instrument of thought that makes a crucial impact on the symbolizing and integrating processes of the individual student. However, students are often deprived of the very types of writing experiences that encourage such thought--that is, writing is treated as it it were merely a conduit for the transmission of information.

A. D. Van Nostrand offers a somewhat different perspective on the relationship between writing and learning:

> Composing consists of joining bits of information into relationships, many of which have never existed until the composer utters them. Simply by writing--that is, by composing information--you become aware of the connections you make, and you thereby know more than you knew before starting to write. In its broadest sense, knowledge is an awareness of relation-

> ships among pieces of information. As you compose, your new knowledge is your awareness of those relationships.[5]

Lee Odell has argued that diverse conceptual activities are entailed in different writing assignments, and that teachers should identify the specific thinking skills they want students to develop in devising their assignments.[6] Charles Cooper cites Emig, Luria, Van Nostrand, and others in advocating the use of writing for discovery, personal development, and learning.[7] These and similar arguments have come to characterize much current literature in the field of composition, and form the most compelling incentive for faculty in all disciplines to pay increasing attention to the uses of writing in their courses.

RESEARCH ON WRITING FOR LEARNING

There has been relatively little systematic study thus far to test the assumption that writing increases student learning. The four studies described below, however, seem to lend support to that assumption.

A study published in 1979 by A. D. Van Nostrand of Brown University utilized a discourse model called the Inference Construct to establish two observations: (1) that the act of writing actually engenders new information, and (2) that "the semantic value of information in any series of assertions is dependent on the way the information fragments are combined."[8] To document these assertions, Van Nostrand analyzed six hundred writing samples of forty-five students in response to fourteen controlled writing assignments. Each assignment gave the students a limited set of information fragments from which they were asked to state

a principle of relationship; they then were asked to integrate these fragments into a coherent paragraph. Finally, the students were to summarize their paragraphs in one sentence. The result was that 85% of the summary sentences included new information beyond the first stated principle of relationship, supporting his contention that writing engenders new information. The specific nature of that new information varied widely, Van Nostrand notes, depending upon the ways in which the information fragments were joined.

R. H. Weiss and S. A. Walters conducted a study to determine whether subject-related writing tasks assigned in college courses increased the amounts and clarity of student learning, whether such assignments led to improvement in student writing skills, and whether they reduced levels of student apprehension about writing.[9] Experimental and control classes in four different subjects (a single instructor taught both the experimental and control group in each subject) were studied using analysis of covariance and chi square in a quasi-experimental pretest/posttest design. Content and teaching methods were held constant between the experimental and control groups, with the only variable being a wide variety of learning-centered writing assignments administered to the experimental groups. No significant differences occurred in the quality of student writing or in the levels of writing apprehension among the four groups. The researchers reported, however, that the students assigned writing tasks made significantly higher gains in clarity about the subject matter than did the non-writing students, although the report does not indicate how the learning gains of the two groups were compared.

Vera Goodkin's 1982 dissertation at Rutgers University explores

relationship between writing, thinking, and learning from an interactionist-constructivist point of view.[10] Generating case studies of students in several courses representing several disciplines, Goodkin used interviews of students and their instructors, as well as journals, log books, field books, class notes, reaction papers, and brief in-class writing of all types to supply the raw data for analysis. Writing was found to be instrumental in constructing knowledge in the learner's own language and interactive with listening, reading, and social contact. The study confirmed the researcher's hypothesis that writing plays a variety of roles in the thinking learning process and demonstrated the importance of writing in abstracting and making connections. She concluded that writing plays an important role in every step of the learning process, and that writing in any discipline will enrich cognition.

In 1984, George Newell reported on a case study approach he used to demonstrate the contrasting uses of writing on composing and learning.[11] He took eight 11th grade students from an English class and asked them to compose aloud while completing three school writing tasks: (1) answering study questions, (2) note taking, and (3) analytical essays. The subject matter consisted of twenty-one prose passages ranging from 400-650 words taken from social science and science textbooks. Applying protocol analysis through a repeated measures, factorial design, he examined the impact of the different writing tasks on three measures of learning: (1) recall, (2)concept application, and (3) gain in passage specific knowledge. His results indicated that essay writing promoted significant gains in concept learning, while knowledge derived from note-taking and answering study questions remained isolated and detached.

Essay writing, he explains, requires the integration of information fragments, and demands more extensive thought and consideration of content than the other writing tasks, being at once more complex and more demanding.

A possible weakness in Newell's study could lie in the researcher's decision to use only skilled writers because it was thought they would be able to adapt to and perform more readily under laboratory conditions. This is quite likely true. On the other hand, unskilled writers, as Mina Shaughnessy's observations demonstrated,[12] are generally so caught up in solving the difficulties of merely putting words on paper and in resolving the mysteries of the surface features of writing that it is not at all clear that they are prepared to deal meaningfully with the subject matter itself. Recent research into the composing processes of college freshmen writers by Sharon Pianko concluded that many of the difficulties of "poor" writers are due to their underdeveloped composing processes.[13] What separates good writers from poor writers, she suggests, is "the ability to reflect on what is written." Another relevant research project, conducted by Sondra Perl into the composing processes of unskilled writers,[14] corroborated these findings. Perl found that so-called "beginning" writers actually have consistent composing processes which include prewriting, writing, and editing components, but that "premature and rigid attempts to correct and edit their work truncate the flow of composing without substantially improving the form of what they have written." (p. 328) These findings suggest that the characteristics cited by Newell as justification for the selection of his subjects--that is, the characteristics which mark skilled writers--are the very ones which foster learning through writing. Reflection, extensive and recursive revising processes, attention to the connections between information fragments, and shuttling between

expressive and transactional functions are synonomous with writing for learning. They are traits commonly found among skilled writers but rarely among their unskilled counterparts. Thus, whether unskilled writers would make the same learning gains as did these skilled writers remains an open question.

A further limitation acknowledged by Newell himself is that the study is concerned with only immediate recall, no attempt being made to determine delayed recall or long-term retention. Finally, the role of composing aloud itself in influencing the nature of the data generated was not discussed, though Newell does refer to the groundbreaking work of Linda Flower and John Hayes[15] as the rationale for this approach.

RESEARCH ON FACULTY ATTITUDES AND PRACTICES

Despite the relative scarcity of empirical data linking student writing to subject matter learning, the case for writing across the curriculum can nevertheless be made strongly, as Maimon, Fulwiler, Emig, Freisinger, and others have clearly shown. Since faculty practices are governed as much by tradition, habit, and departmental reward structures as they are by current knowledge about student learning and cognitive development processes, major curricular changes are inevitably slow and laborious. The degree to which writing across the curriculum is adopted as a common practice will be in large part determined by the degree to which faculty are receptive to the notion that student writing should play a central role in every discipline, their perceptions as to the nature of that role, and how they respond to student writing. The following studies offer some insights into such attitudes and practices among both composition and

non-composition faculty.

In 1961, Paul Diederich and his associates at the Educational Testing Service conducted a study to find out what qualities in student writing were most noticed and recognized by distinguished readers in six occupational fields when they were free to grade as they wanted.[16] The fifty-three readers were roughly equally divided between academics and non-academic professionals. Each graded 300 essays by freshmen at three colleges, and were required to divide them equally into grades from 1 to 9. Using a factor analysis procedure, the investigators found that the readers could be grouped into five clusters based on the dominant factor upon which they based their judgements. These clusters were: (1) the ideas expressed--16 readers; (2) usage, sentence structure, punctuation, and spelling--13 readers; (3) organization and analysis--9 readers; (4) wording and phrasing--9 readers; and (5) personal qualities or "flavor" of the writing--7 readers. It was clear from this study that there is no universally accepted standard of "good" student writing, and that evaluative judgements are to a great extent dependent upon the values held by the reader.

In 1974, Dan Donlan reported data he had compiled from questionnaires completed by 92 elementary and secondary school teachers.[17] His survey was designed to elicit information on how much writing these teachers assigned, the nature of their assignments, the teaching techniques they used, and whom they perceived as responsible for the teaching of writing. From his findings, Donlan offers eleven hypotheses about teacher attitudes and practices. He found that faculty favored frequent, short, in-class writing assignments in the expository and reporting modes,

though the length of required papers tended to increase and the frequency to decrease in the higher grade levels. Marking and grading practices seemed to emphasize content over form and correctness, with extensive teacher comments made. Most of these teachers had no systematic way of dealing with the return of papers. They also tended to view the teaching of writing as a responsibility they shared with English faculty. Donlan's questionnaire and resulting data offer interesting points of departure for looking at what it is that secondary school teachers do in assigning and evaluating student writing. However, the study offers no insights into why they made those assignments, what their expectations of students were, or what the purposes and desired outcomes of student writing were percieved to be.

Also in 1974, Lee Odell published a set of heuristic procedures given to students to help them compose.[18] The article explored the effect of teachers' methods and personality on student writing. The following year, John Daly described the development of a questionnaire to be circulated to faculty at the University of Texas at Austin which dealt mainly with feelings of writing apprehension among college faculty.[19]

Robert Blake reported a study in 1976 designed to find out whether the attitudes of students toward writing and writers would be changed by their taking a graduate seminar on the teaching ofwriting.[20] He developed a test to measure the attitudes held by twenty-two K-12 English and language arts teachers enrolled in a five-week intensive seminar on "Teaching Writing Composition, K-12," which was administered prior to the course and then again after its completion. The test consisted of forty questions reflecting three categories of attitudes: (1) skills of writing--

eighteen questions to find out the relative importance they attached to such factors as active verbs, varied sentence length, consideration of audience, concreteness, wordiness and repetition, cliches, figurative language, and mechanical errors; (2) varieties of writing--sixteen questions relating to the breadth of the universe of discourse they considered appropriate to their teaching, including personal letters, short stories, poems, and letters to the editor; and (3) kinds of writers--six questions on their views about fiction writers, poets, journalists, etc. During the seminar, students produced pieces of writing every day for a variety of audiences and purposes in a wide range of styles incorporating both personal and transactional modes. Discrete exercises to improve style and sentence structure were also assigned. Finally, those adult students read their work aloud to small peer groups, and received positive and supportive comments on their work. As a result of this seminar, these teacher/students showed significant changes on the study's Attitude Scale. Informal self-assessments following the seminar also indicated that they had developed a greater awareness of and sensitivity to the difficulties faced by their own students when composing.

Blake says that four characteristics of the seminar contributed to these changed attitudes; (1) Students came to know the composing process intimately and intuitively. (2) Students all wrote a variety of pieces and discussed them with their peers. (3) They were given discrete exercises in various writing skills which they also discussed with peers. (4) Perhaps most important was the workshop feature of the course itself.

In 1977, George Klinger published the results of a national survey of randomly selected college faculty which yielded 483 responses from

3000 questionnaires, for a usable retrun of 16%.[21] Faculty were asked to evaluate a hypothetical student essay for mechanical errors, structure and style, and overall impression. He found similarities in responses between composition and non-composition faculty to student writing errors and in their concern for the quality of the written product. Klinger does not give any information about the subject or content of the hypothetical essay that he devised, but from the context of his article it can be assumed that it was an expository essay similar to the type commonly assigned in English classes but not normally found elsewhere in academia. Thus it is not surprising that these faculty tended to base their responses upon the same conventions as their English department counterparts. They were, after all, looking at writing that they would generally associate with composition classes. Whether thay would have similar responses to writing done within their own disciplines is far from clear.

Steven Zemelman used faculty interviews to determine the ways faculty encourage student writing.[22] He looked at five categories of activity: context for writing, instructions for writing, support for writing, type of assignment, and evaluation. Zemelman's approach was clearly cognizant of current research and theory that links writing processes with student learning. In his published report, however, the methodology of the study itself is left unclear. He does not explain his procedure for selecting subjects, the specific nature of his questionnaire (which he admits needed refinement) and its administration, or his technique of data analysis. Nevertheless, despite its major flaws, Zemelman's study is of interest because, more than many of the others discussed here, it looks at writing as a process rather than as a

product. He concludes that many teachers do attempt to use writing as a tool for learning, and that they intervene actively in the writing process itself. What they seem to lack most is a "conscious approach to the problems of student writing." (p. 233)

Laurence Behrens reports a survey in 1978 among faculty at American University in Washington. D.C. to measure perceptions of student literacy and to determine the type and quantity of student writing being assigned to non-English classes.[23] Completed survey forms were received from 128 of the 400 faculty contacted, for a usable return rate of 32%. Most of the respondents indicated that they assigned some kind of writing to their students. The large majority felt that student writing skills had declined in recent years. The most common student writing problems they identified involved usage, punctuation, and spelling. These faculty tended to downgrade problems of organization more than surface errors on actual student papers. One finding of special interest was that as students move into higher level courses, they are less frequently called upon to engage in writing that requires them to make personal observations and conclusions, but insteac are expected increasingly to emphasize factual discussion. The respondents felt that requiring revisions and multiple drafts was an especially helpful technique to improve student writing, as was close analysis of student papers by the instructor. Many suggested that demonstrating to students that faculty genuinely care about and expect good writing in itself results in improved performance. The major weakness of the study lies in the inherent limitations of any short-answer or forced-choice questionnaire used to capture the immense

variability of human perceptions and behaviors. In addition, the subjectivity and lack of specificity in many of Behrens' questions leave one frequently wondering what his respondents really meant and how closely their responses correspond to their actual practices.

Elaine Maimon and Barbara Nodine conducted a study of attitudes and behaviors toward the teaching of writing among faculty in various disciplines at Beaver College in 1978 prior to the implementation of a campus-wide writing across the curriculum program funded by the National Endowment for the Humanities.[24] Sixty faculty and administrators were given (1) a 41-question attitude survey based on the National Council of Teachers of English "Opinion Questionnaire" of 1971; (2) a seven part behavioral survey to determine what they actually did in their classes; and (3) a student essay to respond to. From this study, most faculty members were found to view composition instruction as the task of the entire college. The researchers also found that English faculty members required more papers than others, though a majority of courses across the campus included writing assignments. Most faculty either "agreed" or "strongly agreed" that "students should be encouraged to write and rewrite drafts before submitting final papers" and that "writing should be taught as a process of prewriting, drafting, revising, and editing." Maimon and Nodine are careful to point out, however, that the enlightened faculty attitudes found in the survey were not totally consistent with their classroom practices, an observation which supports a point made by Kiesler, Collins, and Miller, who argue that it is normally difficult to correlate attitudes and behaviors with any precision.[25]

Maimon and Nodine say that the Beaver College faculty were representative of faculty at many four-year private institutions. However, these faculty were undoubtedly more aware than most about teaching writing because of the the presence of the N.E.H. grant and a previously held workshop and a separate writing conference on the campus which had been attended by many of them during the preceding year.

In 1979, Mike Rose described a survey of ninety-six academic personnel at UCLA who had indicated an interest in student writing in an attempt to gather information on workload, grading standards, and stylistic biases.[26] Differences and similarities in rating the importance of various features of the written product were identified, with organization and quality of thought rated high, while length, appearance, and form ranked low. Rose suggests, however, that these questionnaire responses were not necessarily consistent with actual practices in many disciplines where, unlike English courses, poor writing quality is overlooked as long as the students get the facts correct. Another difference between English and non-English faculty appeared to lie in the stylistic conventions of various disciplines, which are often quite inconsistent with those promoted in English classes. Rose's final major finding was that the respondents generally agreed that the teaching of writing is not solely the responsibility of the English Department faculty.

From his study's results, Rose develops a penetrating discussion of the meaning of these findings in the context of institutional politics and change mechanisms. He rightly argues that it is not enough to identify problems; a plan of action is also necessary. He offers a number of reasonable suggestions as to what might be done (i.e. [illegible]ner

division departmental writing courses, adjunct courses, cross-disciplinary writing curricula), and how (i.e. professional rewards for writing research and instruction, the development of new curricular models, and cross-disciplinary, hybrid, or generic evaluation schemes for student writing). He concludes by pointing out that the major problem in instituting any such reforms is the compartmentalized, specialized nature of the university itself, an obstacle that can be overcome only partially, and then only after a long, hard struggle by concerned faculty members.

In 1980, Ann Ruggles Gere and her associates conducted a questionnaire survey of 675 members of the Washington State Council of Teachers of English to determine teacher attitudes and behaviors toward student writing.[27] Of the 311 respondents, forty-six were college-level teachers. Basing their instrument on the NCTE's 1971 "Composition Questionnaire," the researchers' overall assumption was that teachers' knowledge, behavior, or attitudes directly influence student writing performance. Four attitudinal dimensions were measured: (1) the importance of standard English in writing instruction; (2) the importance of defining and evaluating writing tasks; (3) the importance of student self-expression in writing instruction; and (4) the importance of linguistic maturity in writing instruction. The results showed teachers falling into two categories. The first group stressed (1) and (2) above, placing an emphasis on correctness, usage, and forms, and viewing evaluation as a means to assure adherence to these forms. The second group stressed (3) and (4) above, placing their emphasis on experience, exploration, personal relationships, and individual development.

Gere and her associates point out the close conformity of these results to the two competing schools of thought described by Barry Kroll,

which he asserts have long dominated the teaching of writing.[28] These paradigms are derived from quite different views of human development, resulting in opposing pedagogies and distinct definitions of the main tasks of education. Those advocating the "nurture" or interventionist approach, as represented by the first group in the Gere study, maintain that environment is the essential source of development, and that the teacher's role should be to intervene in the learning process with specific inputs designed to foster desired skills and mastery of designated factual information. On the other hand, the "nature" or maturationist approach, whose proponents include the second group in the Gere study, holds that the human organism contains the seeds of its own growth, and that the basic educational task is to provide the freedom, security, and other general conditions under which the individual can become fully-realized. Kroll maintains that virtually all of the diverse attitudes toward the teaching of composition are dominated by one or the other of these perspectives. The interventionist approach, which corresponds to Young's current/traditional paradigm discussed in the previous chapter, has long dominated writing instruction. The maturationist paradigm, Kroll argues, has also had an important influence, as demonstrated by the growing recognition of personal writing as an important factor in the composing process. Rather than attempting to choose one approach over the other, Kroll concludes, composition specialists might do well to adopt a philosophy of "pragmatic eclecticism," which would allow the emergence of an "interactionist" perspective focusing on the dynamic interplay between individual and environment, between internal and external influences. Such a perspective, he argues, could unify the two

approaches, support a comprehensive pedagogy, and foster rigorous new research in the field of composition.

Carolyn Kropp's 1983 dissertation at Southern Illinois University at Edwardsville examines the attitudes and practices of college composition teachers about what they consider to be the most effective means of teaching writing.[29] Three categories were derived from the literature in the field: (1) the subject-centered or didactic, (2) person-centered or philetic, and (3) the interactive or heuristic. Data were derived from a questionnaire mailed to a random sample of composition teachers in Illinois and Missouri. Statistical analysis of the results was then conducted. The major finding was that preference for philetic and heuristic orientations was significantly greater than for didactics, especially among faculty influenced by recent theory and research, those newer in the profession, and those teaching in four-year rather than two-year institutions. These teachers also tended to view their students as above average and expressed greater satisfaction with the results of their teaching. Finally, philetic-heuristic teachers felt that a major purpose of their courses was the stimulation of intellectual growth through writing.

Also in 1983, Charlene Eblen reported on a survey of the faculty of five major academic divisions at the University of Northern Iowa to find out their views of student writing.[30] A two page questionnaire was sent to the 471 full-time faculty of these divisions, with 266 usable responses (56.6%). The survey attempted to determine: (1) the qualities in student writing most valued by faculty, (2) the major problems they found in student writing, and (3) the extent to which overall faculty

standards were consistent with the criteria established for a university-wide competency requirement. Faculty were found to assign the greatest importance to overall quality of ideas in student writing, followed by organization, development, grammatical form, and coherence. Perceived problems fell into two categories, those associated with communicative maturity and those associated with standards of edited American English. The former group was cited most frequently than the latter. A large majority of these faculty stated that they required student writing, with essay tests being by far the most frequently cited type. The study results also supported the view of James Britton's London group that writing in school is heavily weighted toward the extensive or transactional mode, and that required writing is seen as a mode of testing what the student has already learned more than as a powerful mode of learning itself.[31] No attempt was made to determine the relationship between faculty self-reports and their actual practices.

Michael Williamson attempted to determine the function of undergraduate writing as perceived by selected faculty in three major divisions (humanities, social sciences, and natural sciences) of a public college in New York State.[32] Two faculty members were selected by their department chair-persons in English, sociology, and biology. These six individuals were interviewed twice by the researcher, with transcripts of the interviews providing the data for the study. Williamson's published report states that his findings were too extensive to examine in their entirety in a short article, so he limits his remarks to the information provided by the two biologists, who were the most traditional of the group in their approach to teaching. Biology students' written work generally fell into three types: class notes, essay exams, and lab reports. Class

notes were felt to have a very important role in the learning process, with one biologist stating that students learn through rewriting notes. Williamson suggests that this notion is consistent with Emig, who says that putting ideas into language aids concept formation. The laboratory reports were viewed as especially important, and the instructors were explicit about the format and approach students were to take in writing them. Correctness of language, style, organization, and adherence to the conventions of the field were emphasized, as the audience for biological writing is a specialized one. Overall, these instructors felt that writing serves primarily an informing function, the credibility of the message dependent at least partially on adherence to the conventions of standard written English. Given these attitudes and practices, Williamson pointed out that writing specialists will have a difficult time promoting writing for learning across the curriculum until faculty are made more knowledgeable about the composing process itself. Meanwhile, composition classes should concentrate on preparing students for the real writing tasks they will face in other departments.

Maurice Scharton describes a questionnaire survey taken among the faculty of Illinois State University designed to solicit their opinions on student writing skills and to gain information on the types, frequency, and uses of writing they assign to those students.[33] The survey generated a 37% useful response rate (415 responses), spread fairly evenly throughout the curriculum. Over 85% indicated general dissatisfaction with the quality of student writing abilities, citing the most problems in matters of sentence structure, grammar, and spelling. On the positive side, the majority of faculty indicated that they assigned at least one

or more types of writing assignments, most frequently term papers and essay tests. He concludes that this data indicated an unexpectedly large proportion of non-English faculty who shared with their English department colleagues a concern about student literacy. His optimism must not be taken to imply that student writing is occurring nearly everywhere and at every curricular level, however, though his discussion might lead one to that conclusion. The study's data showed that relatively few faculty respondents used writing in all their classes. Only one fifth of freshman and sophomore classes, and slightly less than half of junior and senior level courses included student writing, with a surprisingly low one fifth of graduate courses requiring students to write. What Scharton's findings seem to indicate is that writing is used sporadically, most often in upper division courses, by at least half of the faculty, but that few have attempted to fully integrate it systematically into their teaching practices. Student writing remains an appendage, not a vital element, in their educational planning.

Quite recently, Stephen Bernhardt has reported on a study conducted at Southern Illinois University at Carbondale to determine (1) the extent of concern by faculty in that institution's College of Liberal Arts with student writing, and (2) how much and what kinds of student writing were being required in various disciplines.[34] Questionnaires were developed and distributed in the Fall of 1982 to both faculty and students to find out what was happening in their classes. Of 375 full-time Liberal Arts faculty, 193 completed and returned questionnaires (51%). The 140 students surveyed were enrolled in an intermediate level writing course required for their majors. Bernhardt states that the results of the survey largely contradicted the committee's expectations, which were

based on the common suspicions that students write little outside of composition classes, and that faculty in other disciplines do not share the English department's concerns about student literacy. On the contrary, both faculty and students indicated by a wide consensus an awareness of the importance of writing, both in the university and on the job. Both groups also agreed, however, that many students do not write as well as they should. Faculty cited thinking skills, organizational skills, and mechanical skills as all necessary for effective writing. Faculty also believed that writing instruction is a responsibility shared by all departments.

Bernhardt's findings showed that student writing becomes increasingly common at higher course levels where classes are smaller. Both the frequency of writing and length of assignments were reported to increase dramatically, so that juniors and seniors in liberal arts fields commonly are writing in several classes simultaneously. Written or essay-type exams also become increasingly common in upper division courses. Finally, students appeared to be writing for a wide variety of purposes and audiences, and in a broad range of forms: expository essays, critiques, research papers, book reviews, lab reports, and even some ungraded writing exercises.

All of these studies have inherent limitations that suggest the need for additional research in this area. Taken together, however, they present a tentative overall picture of faculty attitudes and practices toward student writing across the curriculum. The studies suggest, for example, that English department faculty are not as alone as they frequently suspect in their concerns about student literacy and its

importance to the educational process. The studies also suggest that few faculty, regardless of discipline, believe that responsibility for promoting literacy skills lies solely with English department faculty. Perhaps more than half of all faculty attempt to promote student writing in some significant way in their teaching. It is clear, however, that there is little common agreement on how to best go about fostering writing skills among disciplines operating with quite diverse rhetorical conventions. In addition, few individual faculty seem to have developed a systematic approach giving overall direction to their own practices toward student writing. The apparent broad interest in student writing is accompanied by fragmentation of attitudes, expectations, and practices in that direction. It would appear that English departments would serve both themselves and the total campus well by seeking ways to better coordinate and cooperate with their colleagues in other disciplines in seeking ways to accomplish what is obviously a widely shared goal. Faculty in every field stand to gain much by sharing their concerns with writing faculty, as well as by seeking to identify those practices that give evidence of promoting student learning and growth through writing in their own disciplines.

NOTES

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